

Amendments to the Claims

1-4. (Cancelled)

2. ~~3.~~ (Previously presented) The method of claim ~~6~~<sup>1</sup>, wherein said antisense morpholino oligomer comprises phosphorodiamidate intersubunit linkages, joining a morpholino nitrogen of one morpholino subunit to a 5'-exocyclic carbon of an adjacent morpholino subunit.

1. ~~6.~~ (Currently amended) A method of promoting hematopoietic stem cell differentiation in vitro, the method comprising:

contacting hematopoietic stem cells *in vitro* with ~~one or more~~ <sup>which oligomer comprises</sup> an antisense morpholino oligomer[[s]] having a substantially uncharged backbone, ~~and the sequence presented as SEQ~~  
ID NO:1, <sup>and has a maximum length of 40 nucleotides,</sup>

wherein said contacting results in a decrease in the number of high proliferative potential colony forming cells (HPP-CFC) relative to the number of clonogenic cells, as compared to stem cells not contacted with said oligomer.

<sup>^</sup>  
AND WHICH DECREASE IN HPP-CFC IS INDICATIVE OF  
HEMATOPOIETIC STEM CELL DIFFERENTIATION.

7-9. (Cancelled)

3. ~~10.~~ (Previously presented) The method of claim ~~6~~<sup>1</sup>, wherein said hematopoietic stem cells are provided by:

- (a) obtaining a stem cell-containing cell population from a subject; and
- (b) treating the cell population in manner effective to enrich the cell population for stem cells.

11-18. (Cancelled)

4. ~~19.~~ (Previously presented) A composition comprising an antisense oligomer having an uncharged backbone, wherein said antisense oligomer is characterized by

- (a) the ability to hybridize with the complementary sequence of a target RNA with high

affinity at a  $T_m$  greater than 50°C,

(b) nuclease resistance, and

(c) the capability for active or facilitated transport into cells;

and has the sequence presented as SEQ ID NO:1. <sup>^</sup> AND HAS A MAXIMUM LENGTH OF 40 NUCLEOTIDES

20-21. (Cancelled)

5 22. (Previously presented) An antisense morpholino oligomer characterized by a backbone which is substantially uncharged, wherein said oligomer has the base sequence presented as SEQ ID NO:1. <sup>^</sup> AND HAS A MAXIMUM LENGTH OF 40 NUCLEOTIDES.